NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY

Journal of the British Neuropathological Society

Editor
R. O. WELLER

North American Editor
E. Tessa Hedley-Whyte

Editorial Board
Louise Cuzner
Françoise Gray
I. R. Griffiths
J. W. Ironside
P. N. Leigh
J. S. Lowe
Janice R. Anderson
Secretary of the Society, *ex officio*

1993
Volume Nineteen

BLACKWELL SCIENTIFIC PUBLICATIONS
OXFORD · LONDON · EDINBURGH · BOSTON · MELBOURNE · BERLIN · PARIS · VIENNA

© 1993 Blackwell Scientific Publications
Osney Mead, Oxford OX2 0EL
25 John Street, London WC1N 2BL
23 Ainslie Place, Edinburgh EH3 6AJ
Suite 500, 5th Floor, 238 Main Street, Boston MA 02142, USA
54 University Street, Carlton, Victoria 3053, Australia

Other Editorial Offices:
Arnette SA
2, rue Casimir-Delavigne
75006 Paris
France

Blackwell Wissenschaft
Meinekestrasse 4
D-1000 Berlin 15
Germany

Blackwell MZV
Feldgasse 13
A-1238 Wien
Austria

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the copyright owner

Set in Photina

Printed in Great Britain by Henry Ling Ltd,
at the Dorset Press, Dorchester, Dorset

CONTENTS

Number 1, February 1993

1 Editorial

2 Wye College Symposium/Referees 1992

3 Annotation. Early central nervous system changes in human immunodeficiency virus (HIV)-infection
F. Gray, M. Hurtrel and B. Hurtrel

10 Heat shock protein (hsx70) mRNA expression in human brain: effects of neurodegenerative disease and agonal state
P. J. Harrison, A. W. Procter, T. Exworthy, G. W. Roberts, A. Najlerahim, A. J. L. Barton and R. C. A. Pearson

22 Immunoelectronmicroscopical demonstration of major histocompatibility class II antigen: expression on endothelial and perivascular cells but not Schwann cells in human neuropathy
P. F. Atkinson, M. E. Perry, S. M. Hall and R. A. C. Hughes

31 Blood–nerve barrier: ultrastructural and endothelial surface charge alterations following nerve crush
M. S. Bush, A. R. Reid and G. Allt

41 Progressive degeneration of motor nerve terminals in GAD mutant mouse with hereditary sensory axonopathy
H. Miura, K. Oda, C. Endo, K. Yamazaki, H. Shibasaki and T. Kikuchi

52 Adaptation of tibial nerve myelinated fibre parameters to reduced limb length caused by irradiation
J. M. Jacobs and R. Myers

57 Prediction of specific damage or infarction from the measurement of tissue impedance following repetitive brain ischaemia in the rat
H. C. Klein, W. Krop-van Gastel, K. G. Go and J. Korf

66 Neural tube defects in the parietal region of human embryos: failure to close or closure–reopening?
M. S. R. Smith, J. B. Upfold and K. Shiota

74 A four-layered 'lissencephalic' cortex induced by prenatal X-irradiation in the rat
I. Ferrer, S. Alcántara and E. Martí

82 Zn-binding globulin in human fetal brain and liver: a marker for passive blood/CSF transfer of protein
K. M. Dziegielewska, J. E. Bell, N. Matthews, K. Mollgård and N. R. Saunders

91 Case report. Brown–Vialetto–Van Laere Syndrome
D. A. Francis, J. R. Ponsford, C. M. Wiles, P. K. Thomas and L. W. Duchen

95 Case report. Neurocytoma/lipoma (neurolipocytoma) of the cerebellum
D. W. Ellison, S. C. Zygmunt and R. O. Weller

99 Forthcoming meetings

100 Meeting report

102 Book reviews

Number 2, April 1993

107 Annotation. The management of carotid artery disease: application of new diagnostic techniques and their neuropathological significance
I. Bone, A. D. Mendelow and D. I. Graham

120 Cerebrovascular permeability to azo dyes and plasma proteins in rodents of different ages
T. Moos and K. Møllgård

128 Hippocampal damage in fatal paediatric head injury
M. J. Kotapka, D. I. Graham, J. Hume Adams, D. Doyle and T. A. Gennarelli

134 Ubiquitin immunocytochemistry in human spongiform encephalopathies
J. W. Ironside, L. McCardle, P. A. R. Hayward and J. E. Bell

141 Histochemical and immunocytochemical study of ubiquitinated neuronal inclusions in amyotrophic lateral sclerosis
K. Mather, J. E. Martin, M. Swash, G. Vowles, A. Brown and P. N. Leigh

146 Secretion of cathepsin B by human gliomas *in vitro*
D. McCormick

152 Proliferating cell nuclear antigen (PCNA): expression in samples of human astrocytic gliomas
T. Revesz, N. Alsanjari, J. L. Darling, F. Scaravilli, D. P. Lane and D. G. T. Thomas

159 Malignant infiltration of peripheral nerves in the course of acute myelomonoblastic leukaemia: neuropathological study of two cases
A. Vital, C. Vital, E. Ellie, X. Ferrer, A. Lagueny, A. M. Ferrer, A. Broustet and G. Gbikpi-Benissan

164 3-Acetylpyridine-induced degeneration in the dorsal root ganglia: involvement of small diameter neurons and influence of axotomy
C. M. Beiswanger, T. L. Roscoe-Graessle, N. Zerbe, K. R. Reuhl and H. E. Lowndes

173 Failure of remyelination in areas of demyelination produced in the spinal cord of old rats
J. Gilson and W. F. Blakemore

182 Short report. Heterogeneity of centronuclear myopathy shown by flow cytometry of nuclear DNA
K. Metze, R. Schnabel, W. Mellin, F. Gullotta and W. Hiddemann

185 Proceedings of the Eighty-Fifth Meeting of the British Neuropathological Society

205 Forthcoming meetings

206 Book reviews

Number 3, June 1993

209 Development of the cortical dysplasia of type II lissencephaly
M. V. Squier

214 Characterization and distribution of phagocytic macrophages in multiple sclerosis plaques
H. Li, J. Newcombe, N. P. Groome and M. L. Cuzner

224 Axonal neurofilamentous accumulations: a comparison between human and canine giant axonal neuropathy and 2,5-HD neuropathy
R. H. M. King, M. Sarsilmaz, P. K. Thomas, J. M. Jacobs, J. R. Muddle and I. D. Duncan

233 Virulent and avirulent strains of Semliki Forest virus show similar cell tropism for the murine central nervous system but differ in the severity and rate of induction of cytolytic damage
I. M. Balluz, G. M. Glasgow, H. M. Killen, M. J. M. E. F. Mabruk, B. J. Sheahan and G. J. Atkins

240 The neurotoxicity of α-chlorohydrin in rats and mice: I. Evolution of the cellular changes
J. B. Cavanagh, C. C. Nolan and M. P. Seville

253 Cerebral amyloid in human prion disease
R. Watanabe and L. W. Duchen

261 The cellular pathology associated with Alzheimer β-amyloid deposits in non-demented aged individuals
F. Coria, A. Moreno, I. Rubio, M. A. García and F. Mayor Jr

269 Corpora amylacea could be an indicator of neurodegeneration
S. K. Singhrao, J. W. Neal and G. R. Newman

277 Short communication. Differential pattern of β-amyloid protein deposition within cortical sulci and gyri in Alzheimer's disease
J. Clinton, G. W. Roberts, S. M. Gentleman and M. C. Royston

282 Case report. Intracranial lipoma of the Sylvian region
G. Cserni

287 Forthcoming meetings

288 Book reviews

Number 4, August 1993

291 Parvalbumin and calbindin D-28k in the human motor system and in motor neuron disease
P. Ince, N. Stout, P. Shaw, J. Slade, W. Hunziker, C. W. Heizmann and K. G. Baimbridge

300 Diminution of dopaminergic neurons in the substantia nigra of sporadic amyotrophic lateral sclerosis
S. Kato, M. Oda and H. Tanabe

305 Granule cells and the development of synapses with mossy fibres in the cerebellum of the jaundiced Gunn rat
Y. Takagishi and H. Yamamura

313 Cytoplasmic expression of the leu-4 (CD3) antigen in developing Purkinje cells in the rat cerebellum
C. Gerloff, R. Knoth and B. Volk

324 Ependymal cells of the choroid plexus express tumour necrosis factor-α
M. J. Tarlow, R. Jenkins, S. D. Comis, M. P. Osborne, S. Stephens, P. Stanley and J. Crocker

329 Astroglial changes in the cerebral cortex of AIDS brains: a morphometric and immunohistochemical investigation
S. Weis, H. Haug and H. Budka

336 Different patterns of neuropathological disease in rhesus monkeys infected with simian immunodeficiency virus, and their relation to the humoral immune response
A. F. Dean, M. Montgomery, A. Baskerville, R. W. Cook, M. P. Cranage, S. A. Sharpe, M. J. Dennis, P. J. Luthert, S. T. Hou and P. L. Lantos

346 Absence of neuron-associated microtubule proteins in the rat C-6 glioma cell line. A comparative immunoblot and immunohistochemical study
G. M. Zientek, M. M. Herman, S. D. Katsetos and A. Frankfurter

350 Fusion of myogenic cells to the newly sealed region of myofibres in skeletal muscle regeneration
T. A. Robertson, J. M. Papadimitriou and M. D. Grounds

359 Short communication. Distinction between artefactually shrunken and truly degenerated 'dark' neurons by *in situ* fixation with microwave irradiation
E. M. Løberg and A. Torvik

364 Alzheimer's lesions labelled by anti-ubiquitin antibodies: comparison with other staining techniques. A study of 15 cases with graded intellectual status in ageing and Alzheimer's disease
Y. He, C. Duyckaerts, P. Delaère, F. Piette and J-J. Hauw

372 Forthcoming meetings

Number 5, October 1993

373 Leucotomized schizophrenics lose neurons in the mediodorsal thalamic nucleus
B. Pakkenberg

381 Selective excitotoxic pathology in the rat hippocampus
L. E. Jarrard and B. S. Meldrum

390 Neuronophagia in the motor cortex in amyotrophic lateral sclerosis
D. Troost, N. Claessen, J. J. van den Oord, D. F. Swaab and J. M. B. V. de Jong

398 Cellular changes in the cerebellar granular layer in AIDS-associated PML
K. Kuchelmeister, M. Bergmann and F. Gullotta

402 Neurological reactions in HIV-infected patients treated with trichosanthin
P. A. Garcia, D. E. Bredesen, H. V. Vinters, R. Graefin von Einsiedel, R. L. Williams, J. O. Kahn, V. S. Byers, A. S. Levin, L. A. Waites and R. O. Messing

406 Myopathy in HIV infection: the role of zidovudine and the significance of tubuloreticular inclusions
R. J. M. Lane, K. A. McLean, J. Moss and D. F. Woodrow

414 Anti-vimentin staining in muscle pathology
A. Bornemann and H. Schmalbruch

420 Mumps virus alters aggregation of acetylcholine receptors in cultured rat skeletal muscle cells
S. Kelić, E. Norrby and K. Kristensson

429 Immunocytochemical detection of the microsomal glucose-6-phosphatase in human brain astrocytes
J. E. Bell, R. Hume, A. Busuttil and A. Burchell

436 Comparative study on the expression of stress-response protein (srp) 72, srp 27, αB-crystallin and ubiquitin in brain tumours. An immunohistochemical investigation
S. Kato, A. Hirano, M. Kato, F. Herz and E. Ohama

443 Proceedings of the Eighty-Sixth Meeting of the British Neuropathological Society

454 Future meetings

455 Meeting report

457 Book reviews

460 Journal Bursary Announcement

Number 6, December 1993

461 Annotation. Selective vulnerability in acute energy deprivation syndromes
J. B. Cavanagh

471 The neurotoxicity of α-chlorohydrin in rats and mice: II. Lesion topography and factors in selective vulnerability in acute energy deprivation syndromes
J. B. Cavanagh and C. C. Nolan

480 CSF drains directly from the subarachnoid space into nasal lymphatics in the rat. Anatomy, histology and immunological significance
S. Kida, A. Pantazis and R. O. Weller

489 IDPN impairs post-traumatic regeneration of rat sciatic nerve
M. Morbin, S. Monaco, G. Zanette and N. Rizzuto

500 Anti-NKH-1 antibody specifically stains unmyelinated fibres and non-myelinating Schwann cell columns in humans
N. Le Forestier, M-C. Lescs and R. K. Gherardi

507 Assessment of nuclear size, nuclear DNA content and proliferation index in stereotaxic biopsies from brain tumours
I. Salmon, M. Levivier, I. Camby, K. Rombaut, T. Gras, J.-L. Pasteels, J. Brotchi and R. Kiss

519 A Golgi study of human locus coeruleus in normal brains and in Parkinson's disease
S. Patt and L. Gerhard

524 A rapid and non-radioactive PCR based assay for the detection of allelic loss in human gliomas
A. von Deimling, B. Bender, D. N. Louis and O. D. Wiestler

530 Brief communication. Effect of infection with rubella virus on the development of rat cerebellar cells in culture
V. A. I. Natale, J. F. Caffrey, B. J. Sheahan and G. J. Atkins

535 Future meetings

536 Book reviews

539 Author and subject index to Volume 19